EarthWatch Rhode Island

Topic: New Ozone Standards Strengthen Protection of Rhode Island's Air Quality

Date: March 28, 2008; Location: East Providence Air Quality Monitoring Station

The United State Environmental Protection Agency (USEPA) has issued new standards that reduce the amount of ozone that will be allowed in the air. The more stringent standards mean that Rhode Island could double the number of **Air Quality Alert Days** DEM issues and that Air Quality Alert days may start earlier and end later in the year than in previous years..

Ground level ozone, or smog, is a major air pollution problem in Rhode Island and other northeast states Smog forms when emissions from power plants, factories, automobiles and other products we use every day react in the atmosphere in the presence of sunlight and high temperatures. Ground-level ozone is a powerful respiratory irritant that can reduce lung function, exacerbate asthma attacks, inflame and damage cells that line the lungs, and aggravate chronic cardio-pulmonary diseases. Symptoms may include: coughing; shortness of breath; increased susceptibility to respiratory infection; nose and throat irritation; chest pain; and other respiratory ailments. Exposure to ozone has also be linked to heart problems and premature death. While ozone pollution is a clear threat to those with respiratory disease, it can also affect healthy children and adults engaged in outdoor activities on smoggy days.

The new standards reduce the national ambient air quality standard for ozone from 0.08 parts per million (ppm) averaged over eight hours to 0.075 ppm, also averaged over eight hours. However, state officials worry that the standards do not go far enough. EPA's own Clean Air Science Advisory Committee (CASAC) recommended a standard of between 0.070 and 0.060 ppm, considerably lower than the new standard.

The state is doing its part to reduce ozone pollution. Federal and state regulations have required substantial reductions in emissions from industrial sources, power plants and mobile vehicles and equipment that have resulted in substantial reductions in ozone levels in Rhode Island. Rhode Island has implemented numerous measures to lower emissions from motor vehicles. They include enhanced emissions testing, anti-idling programs, and requirements for cleaner burning fuels and vapor recovery at gas stations. The state has also adopted more stringent California emissions standards for cars sold in the state that go into effect starting with model year 2008. Federal regulations have also required major

reductions in emissions of nitrogen oxide (NOx) – a major contributor to smog pollution – from power plants and other large industrial sources in the Midwest and Eastern United States. However, further emissions reductions, both in Rhode Island and in upwind states, will be necessary for Rhode Island to attain the new ozone standard.

The DEM is responsible for issuing **Air Quality Alert Day warnings** when levels of ozone or fine particulate matter (PM2.5) are predicted to reach unhealthy levels.

DEM monitors ozone levels at three air monitors in Rhode Island - located in Narragansett, W. Greenwich and East Providence. PM2.5 monitors are also located at the Narragansett and W. Greenwich locations, as well as at a site in Providence. The monitors automatically transmit pollutant levels hourly to the DEM Air Quality Polling computer station in Providence. At that point, DEM Senior Air Quality Specialist Lenny Giuliano, a trained meteorologist, reviews the ozone and PM2.5 data in combination with regional pollutant forecasts, area weather forecasts and air trajectory maps. At 2 pm each day, Lenny confers with EPA and colleagues from the six New England states and New York and New Jersey on a conference call to discuss the regional ozone and PM2.5 outlook.

The air monitoring station in East Providence is one of three that transmit ozone levels hourly to DEM.

If, after reviewing data and consulting with other Northeast states, it appears likely that ozone or PM2.5 will reach unhealthy levels the following day, Lenny declares an **Air Quality Alert Day**. The Department alerts the public through the local media. The Department also notifies RIPTA, which provides free bus transportation on **Air Quality Alert Days**.

DEM's daily air quality forecast and links to near real time ozone and particulate matter readings are available on the Department's website, www.dem.ri.gov, by clicking on "Air Quality Forecast" under "Timely Topics." DEM recommends that people who are particularly sensitive to the effects of ozone check that page often for current air pollution levels to protect themselves.

When ozone levels rise, DEM recommends that **all** residents take action to reduce the amount of pollution they put in the air. Viewers can tune into to Channel 10, Rhode Island's official **Air Quality Alert** station, to find out when DEM is forecasting an **Air Quality Alert Day**. On those days, viewers can help by following the tips below:

- **Drive Less.** Ride RIPTA busses for *FREE* (all routes, except special services such as beach bus)! Share a ride with a friend. Combine errands into one trip.
- **Conserve electricity.** Turn off lights, appliances, fans, computers, etc. when not in use. Raise the temperature settings on your air conditioner slightly.
- **Avoid fueling your car.** If you need to, refuel after dark.
- **Limit use of lawn equipment.** If necessary, mow after 6:00 p.m.

- **Take it easy!** Avoid strenuous outdoor activities during the late afternoon and drink plenty of water.

Interviews:

- Lenny Giuliano, Senior Air Quality Specialist, Department of Environmental Management (Photo 1 below with Channel 10 Reporter RJ Heim), provided an overview of the new standard and what it means to Rhode Island, the process for declaring an Air Quality Alert Day and what citizens can do to reduce ozone pollution.
- Dr. Robert R. Vanderslice, Chief, Office of Environmental Health Risk Assessment, Department of Health (Photo 2 below with Channel 10 Reporter RJ Heim) provided information on the health affects and risks associated with ozone pollution.

Photo 1

Photo 2